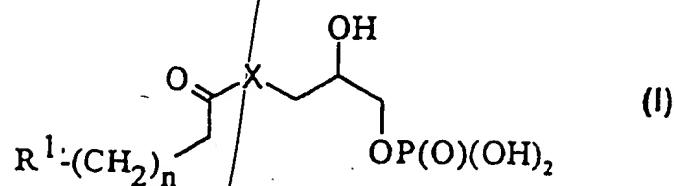


What is claim 15²
Claims:

5 1. Use of lysophosphatidyl acid derivatives of general formula (I)

10



wherein

15 R¹ = alkyl, alkenyl or alkynyl having from 6 to 24 carbon atoms;

n = 0 - 12;

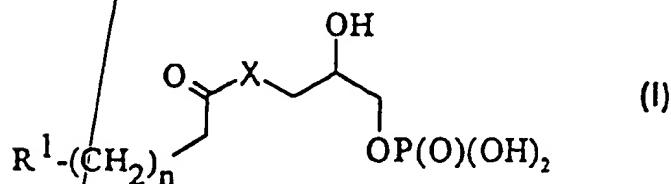
X = oxygen or NH;

and the physiologically tolerable salts, esters, optically active forms, racemates, and derivatives thereof which can be metabolized *in vivo* to yield compounds of general formula (I), in the production of drugs for treating bone metabolic disorders.

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2. Compounds of formula (I)

25



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wherein

R¹ = alkyl, alkenyl or alkynyl having from 6 to 24 carbon atoms;

n = 0 - 12;

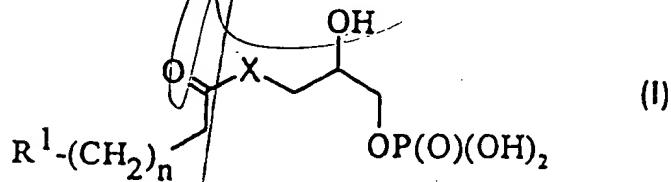
X = oxygen or NH;

the compounds (*all-cis*-5,8,11,14)-eicosatetraenoic acid 2-hydroxy-3-phosphonooxypropyl ester, *cis*-9,*cis*-12-octadecadienoic acid 2-hydroxy-3-phosphonooxypropyl ester, (*all-cis*-9,12,15)-octadecatrienoic acid 2-hydroxy-3-phosphonooxypropyl ester, or *cis*-9-octadecenoic acid 2-hydroxy-3-phosphonooxypropyl ester being excluded, and with the proviso that if X represents oxygen, n in the $-(CH_2)_n-CH_3$ group does not represent the numbers 7, 9, 11, 13, or 15, and the physiologically tolerable salts, esters, optically active forms, racemates, and derivatives thereof which can be metabolized *in vivo* to yield compounds of general formula (I).

3. A drug, containing at least one compound of formula (I) according to claim 2, in addition to common carriers and adjuvants.

4. Use of compounds of formula (I) according to claim 2 in the production of drugs for treating bone metabolic disorders.

5. A drug, containing at least one compound of formula (I)



wherein

R¹ = alkyl, alkenyl or alkynyl having from 6 to 24 carbon atoms;

n = 0 - 12;

X = oxygen or NH;

the compounds (*all-cis*-5,8,11,14)-eicosatetraenoic acid 2-hydroxy-3-phosphonooxypropyl ester, *cis*-9,*cis*-12-octadecadienoic acid 2-hydroxy-3-phosphonooxypropyl ester, (*all-cis*-9,12,15)-octadecatrienoic acid 2-hydroxy-3-

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phosphonooxypropyl ester, or *cis*-9-octadecenoic acid 2-hydroxy-3-phosphonooxypropyl ester being excluded; and with the proviso that if X represents oxygen, n in the $-(CH_2)_n-CH_2$ group does not represent the numbers 9, 11, 13, or 15, and the physiologically tolerable salts, esters, optically active forms, racemates, and derivatives thereof which can be metabolized *in vivo* to yield compounds of general formula (I).

6. Use of compounds of formula (I) according to claim 3 in the production of drugs for treating bone metabolic disorders.

add A1
add B1
add B2
add C1
add E3